

The Magazine for LEGO® Enthusiasts of All Ages!



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Brick Journal

Issue 74 • July 2022
people • building • community

STAR WARS™ IN BRICK

Jürgen Wittner's
Treadable

Jhaelon Edwards
Smith's
Starkiller Base



**INSTRUCTIONS
AND MORE!**



Star Wars and all related properties and characters TM & © Lucasfilm.

Brick Journal

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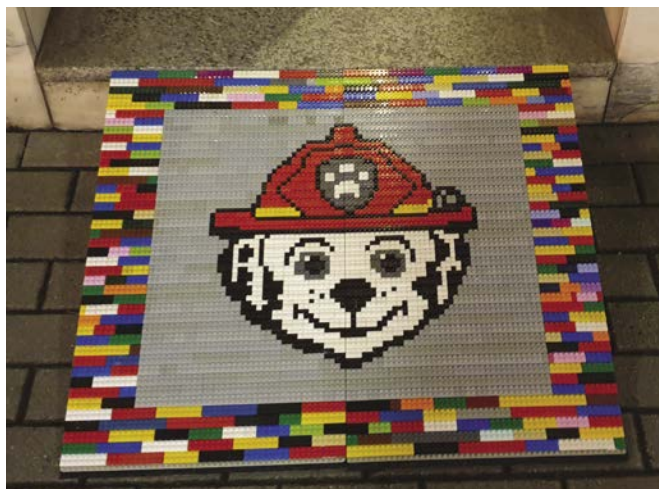
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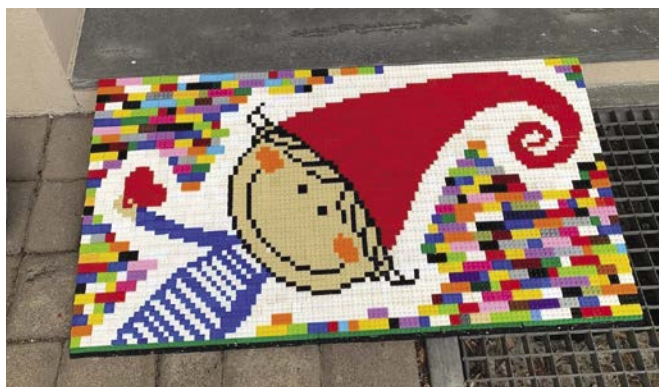
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A ramp at Hamm, Germany.



Siegburg, Germany.

Walking up a step is something many of us take for granted, but for some it's a challenge. Those who travel by wheelchair or other aids cannot step up—a wheelchair is simply not designed for such movement, and using canes and crutches require balance and effort that may be taxing to a person.

Making these places accessible is the mission of Rita Ebel, herself a wheelchair user. Her solution to the step? Build a ramp with LEGO bricks and mount to it. The idea isn't an original one—Rita was inspired to do this when she read an article in a trade magazine for paraplegics about a woman, Corinne Huber, who builds ramps out of LEGO. After seeing a picture of an electric wheelchair going over the LEGO ramp, Rita was totally sold on the idea and wanted to build ramps in her hometown of Hanau, Germany. After contacting Corinne, Rita got instructions for ramp building and started a group (Team Legooma) to build them.

Rita's first ramp was built in 2019, and since then has built over 70 ramps for stores and businesses. She takes ramp requests by mail, which must fit some basic conditions: only one step in height (17 cm high), the ground in front of the step must be reasonably level, and only stores and businesses can submit requests—the only exceptions are residences with children who are dependent on wheelchairs. Those meeting the conditions are put on a waiting list and are processed one by one. Each ramp is glued together and placed on location—they are not fastened, but a mat under the steps prevents slipping.



Rita Ebel at one of her ramps, in Bensheim, Germany.

Rita Ebel: Ramping Up Accessibility in Germany!

Article by Joe Meno

Photography
by Rita Ebel (@die_Lego_Oma)



Joe Lam's fan and brush.

Joe Lam: Brick Artist!

*Article and Photography
by Joe Lam*

Most of the time, LEGO art is thought of as mosaics, and maybe sculpture. However, some new models made of paintings and brush art have begun to be seen online. One of the creators of these models is Joe Lam. *BrickJournal* chatted with him about his work and building.

Joe Lam lives in Hong Kong. An accountant by day, after hours he builds beautiful models of birds and art. He started building in 2017, and as he puts it, "I can't stop collecting LEGO." His favorite LEGO items are the Modular buildings and minifigures. He enjoys building culture-related and architectural models, but really likes building painting-like creations, including oil painting and ink painting.

When asked about how he started building his own models, Joe answers, "After a few years of collecting and building LEGO sets, I started to think whether I could build my own creations by using LEGO parts that I collected. As I said earlier, I like the Modular series so much, my first MOC was my living room at minifigure scale. I will never forget that when I finished building this, I showed my wife and asked her, 'Do you recognize what I am building?' I was so excited at that time; the satisfaction of building my own unique creation motivated me to continue building MOCs."



Mt. Fuji and Cranes, which is now on display at the LEGO House in Denmark.

Koi fish painting.



This eventually led to the creations Joe makes now: "I like trying different themes and covering different topics. Around two years ago, with the shared background of studying oil painting and ink painting together with my wife Frances for several years, I started to build some art-themed creations, like traditional jade seals—the Asian's traditional four treasures of the study, and paintings."

Joe's reasons for building are a little different. When he started building MOCs, Joe wants to show others that LEGO bricks can be anything within one's imagination. He builds from a wide range of topics, such as mechs, animation-based MOCs, painting and culturally-themed models, modulars, and vehicles. He comments, "There is a quote that I like most about creativity from Albert Einstein: 'Creativity is seeing what others see and thinking what no one else ever thought.' Bricks are limited, but creativity is not. So I am always happy to hear others saying, 'Wow, is it LEGO?' when they see my MOCs."



Blondie's Parallel Lines album cover, rendered by Adnan Lotia. © Chrysalis Records.

Adnan Lotia: Cover Artist

*Article by Joe Meno
Photography by Adnan Lotia*

Adnan Lotia is a name that is not familiar to many, but his work has been widely seen on Instagram. His account, @uvupv, posts a build almost daily that is based on something that is relatively rare now: album covers. His artwork is digitally created and based on the albums of the '80s.

Before he was a digital creator, Adnan was a educator and graphic designer. He has been LEGO building since childhood—he and his brother shared a huge amount on LEGO and they loved building sets and freeform creations together. They both returned to collecting LEGO after college, but mostly for display purposes rather than for building their own creations.

Adnan continued into building and was teaching LEGO robotics in Brooklyn, New York and inevitably ended up building quite a few interesting projects with his students, including Great Ball Contraptions and complex, multifunction robots for tournament competition. His first custom creations were alternate builds of the first big set Adnan bought as an adult: Batman's Tumbler. He designed several versions of Batman's Batwing, an aircraft based on a film from the 1980s. Next, he built a motorized helicopter based on *Airwolf*, a TV show from the '80s; then a motorized robot based on *Short Circuit*, another '80s film; and then a motorized car based on *Knight Rider*, yet another '80 TV series. It's easy to see a pattern developed with his building subjects.

Adnan's favorite theme is Blacktron—black became his favorite color at a very



Building

Thomas Carlier: Building Casita Madrigal

Article and Renders by Thomas Carlier

Thomas Carlier is a builder living in Switzerland. Currently a fifth-year medical student, he has been playing with LEGO bricks since he was little. He started seriously building MOCs around the age of 16, thanks to the LEGO IDEAS platform. He only had a few bricks in stock when he started building his MOCs, so digital creation was obvious to him. As time has progressed, he has been able to expand his stock, but having started the habit of building digitally, Thomas doesn't see himself changing to real-life building, as he has much more freedom with digital bricks, with no restrictions in the piece count and color use.

LEGO Digital Designer is the fastest software to build digitally, but sometimes he also uses Mecabricks, an online LEGO construction platform which has the advantage of allowing some 'illegal' construction techniques not supported by LDD. Stud.io is a good transition to make a model buildable in real life, but Thomas hasn't gotten used to it yet, so he'll stick with LDD.

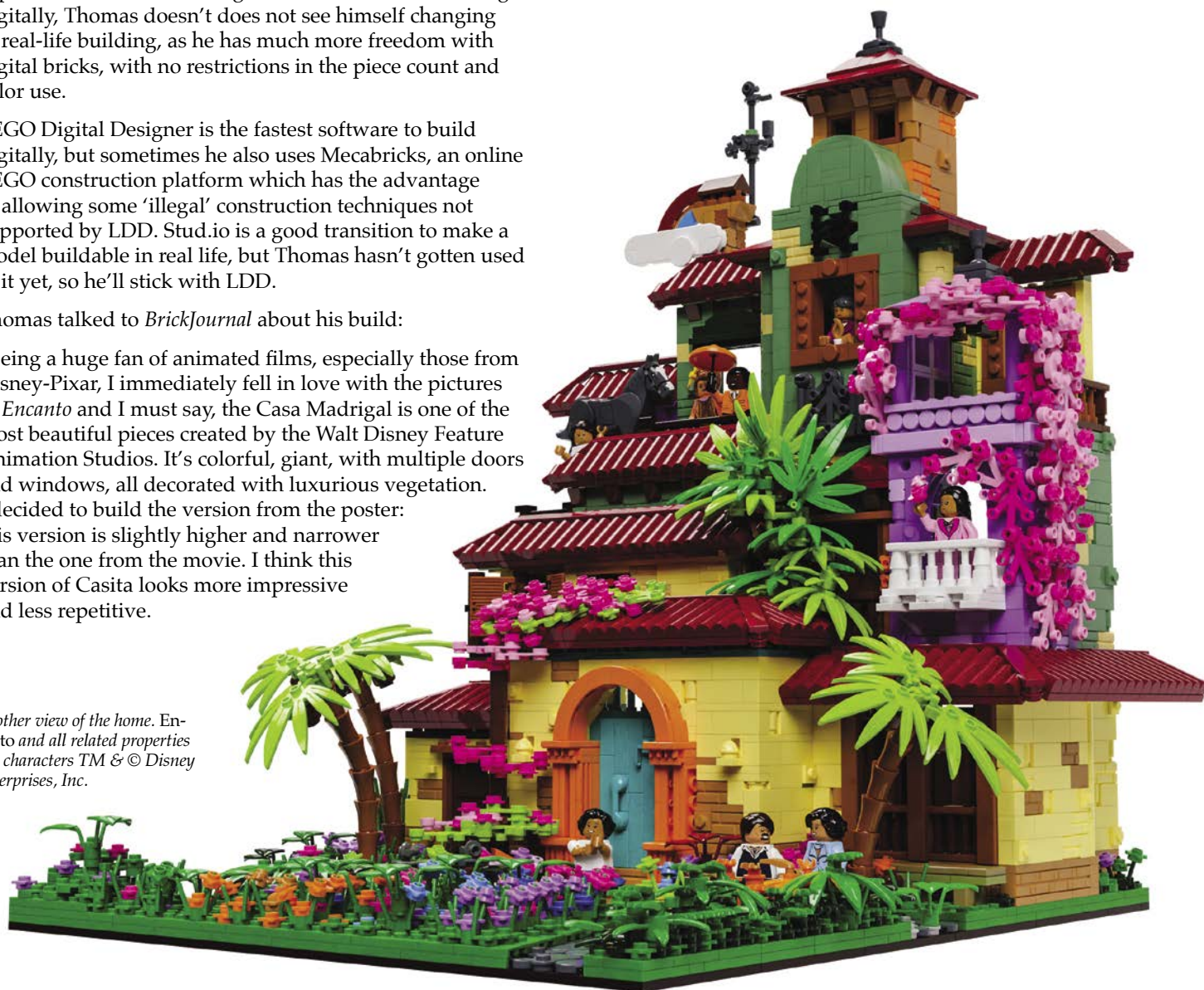
Thomas talked to *BrickJournal* about his build:

"Being a huge fan of animated films, especially those from Disney-Pixar, I immediately fell in love with the pictures of *Encanto* and I must say, the Casa Madrigal is one of the most beautiful pieces created by the Walt Disney Feature Animation Studios. It's colorful, giant, with multiple doors and windows, all decorated with luxurious vegetation. I decided to build the version from the poster: this version is slightly higher and narrower than the one from the movie. I think this version of Casita looks more impressive and less repetitive.

Another view of the home. Encanto and all related properties and characters TM & © Disney Enterprises, Inc.



Thomas Carlier's Casita Madrigal.





The ballroom...

Patrick Higgins: Building Disney's Haunted Mansion's Ballroom!

*Article and Photography
by Patrick Higgins*

"Welcome to the Haunted Mansion..." begins one of the most famous attractions at Disneyland and Walt Disney World. The Haunted Mansion wasn't one of the original attractions at Disneyland (the first Disney park) but quickly became a classic when it did open in 1967. Since then, guests have been going to see the many rooms and chambers inside, including the ballroom.

Home of a 'swinging wake,' the dining room, as seen from above by the guests in their Doom Buggies, is real... but the ghosts dancing and partying? They fade in and out of sight, glowing and translucent. The organ player fades and the organ pipes show the 'voices' behind it. All of this is live, and while the dancers spin and fade, the guests watching above are left wondering "How did they do that?"

And how can you do this in LEGO?

Patrick Higgins, a college student, showed us how. He's been a LEGO builder pretty much all of his life, with his first set being the 2006 Batwing. His favorite theme is *Batman* (2006-2008). His current favorite theme is *Harry Potter*.

He always enjoyed building new things with his parts, but then he started building big. His first huge model, since he is a Batman fan, was Arkham Asylum. He built it to make a place to store all of the LEGO Batman villains he had collected over the years. He displayed it at Brickfair Alabama, and loved that feeling of satisfaction he got from seeing the final product. Since then, he has continued making new things and trying new techniques.

*Haunted Mansion and all related
properties and characters TM & ©
Disney Enterprises, Inc.*



...where "happy haunts materialize."

For the *Haunted Mansion*, he was inspired by the actual ride at Walt Disney World. His family went to the park in Spring 2021 and the attraction has always been one of his favorite rides. While riding it, he got curious about how the effect in the haunted ballroom was accomplished, and after a few Google searches, he had figured it out. He was so impressed with the effect that he decided the haunted ballroom would be his next project, and that he would get that effect to work in LEGO scale.

For this build, it took a lot of pre-planning before even the first bricks came together. For example, the motors needed to move the figures had to run under the entire build, so Patrick had to first find motors that would do what he wanted, then had to bump the entire floor up to allow the motors to operate. For the interior details, he used a book from Disney World that was full of details and pictures of the Haunted Mansion. It proved to be invaluable to faithfully recreate the Mansion, which took six months to complete.



"Grim grinning ghost come out to socialize."



The base is covered with the logo for the Disney attraction.





Building

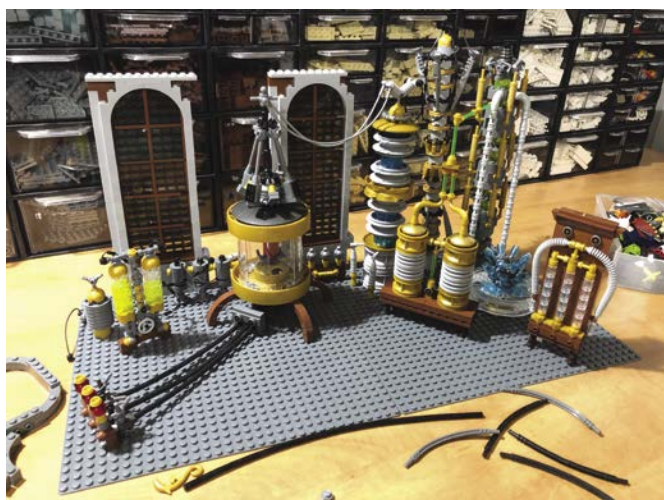
Sebastian Bachórzewski's *Science over Superstition*

*Article and Photography
by Sebastian Bachórzewski*

Somewhere, a scientist is working in his lab on an experiment that will change the world! The lab is filled with the crackle of electricity and the smell of oil and soot. The scientist checks his notes and calculates and recalculates. With a throw of a switch, he will tap into a source of energy that could power nations!

The villagers have viewed the mansion at the edge of town with suspicion. Strange lights and sounds have been seen and heard there, and only a few know about the recluse who lives there. For the villagers, it is a place to fear. But if they had the courage to knock on the door... what would they find?

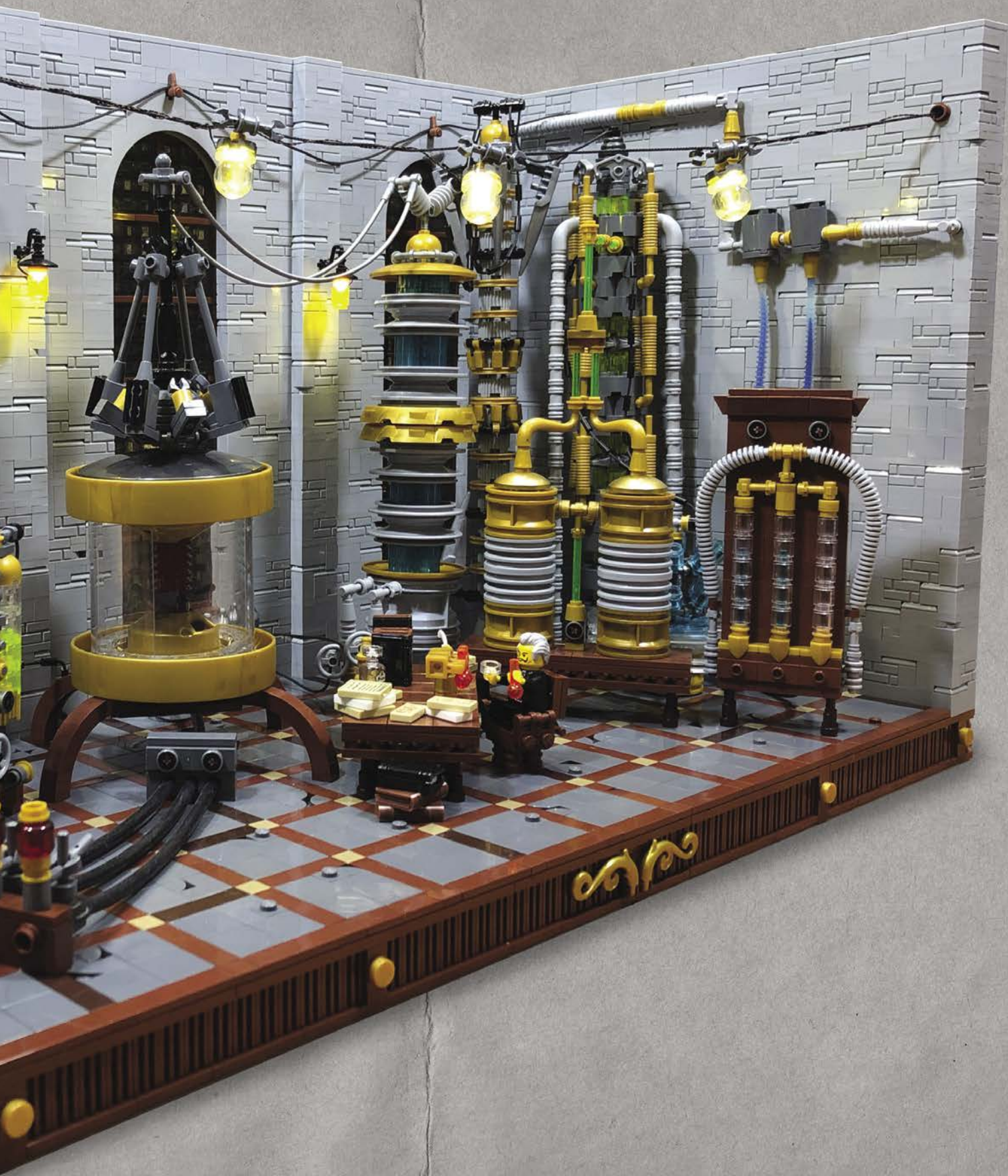
This layout, *Science over Superstition*, was built by Sebastian Bachórzewski, a builder who has a family shop with LEGO bricks. Before the shop, he spent many years in advertising as a designer. He's only been building vignettes for about seven years, continuing with bigger creations four years ago. Since then, he has been constantly trying to improve his skills.



Beginning the layout, with larger elements built and placed.



The completed layout.





Lee Goldman's Fury Interceptor

Article by Steven Smyth,
Bantha Bricks: Fans
of LEGO Star Wars

Photography by Lee Goldman

Star Wars and all related properties
and characters TM & © Lucasfilm.

Lee Goldman is a builder with quite an array of amazing *Star Wars: The Old Republic* builds, including the Sith *Fury*-class Interceptor. I thought it would be fun to spend a little time checking out this build and getting to know the person behind this upscaled beast!

Steven Smyth: *How's it going, Lee? I know you have quite a following with the members of the Bantha Bricks group and I know people in the community and beyond in other online discussions have been drooling over that upscaled Sith Fury. You have truly built some amazing starship MOCs, but for the uninitiated, please introduce yourself and tell us a little about what you do.*

Lee Goldman: Thanks. My name is Lee Goldman and I have a business that focuses on educational snorkeling tours in places throughout the tropical Pacific. I started this business after many years working for travel companies that hired me to design and lead adventure tours throughout the Indo-West Pacific. I have a Master's degree in Marine Biology, and my family and I recently moved to Las Vegas after 20 years living in the Philippines, Palau, and Guam. I know Las Vegas seems an interesting choice to live, but I love the desert as much as the ocean. I come from a family of engineers, and although I did not follow their paths in life, I certainly got my love of building from them.



Jürgen Wittner's DN-25 Treadable

Article by Steven Smyth,
*Bantha Bricks: Fans
of LEGO Star Wars*

Photography by Jürgen Wittner

Galactic greetings! I'm Steven Smyth from Bantha Bricks: Fans of LEGO Star Wars. Since the community's founding in 2016, on an almost daily basis, I have witnessed amazing and creative *Star Wars* builds in the best *Star Wars*-themed building brick group on Facebook. Jürgen Wittner, who is an inspiring *Star Wars* LEGO builder in the community, built a minifigure scale DN-25 Treadable, the vehicle associated with Lando Calrissian, but technically belonging to Kalo'ne, in *Star Wars Episode IX: The Rise of Skywalker*. I thought it would be great to learn more about this fantastic friend of the Bantha Bricks community, an extremely talented builder, and his custom LEGO vehicle build.

Steven Smyth: *How's it going, Jürgen? I know you have quite a following with the members of the Bantha Bricks group and I know people in the community and beyond in other online discussions have been awestruck by your DN-25 Treadable. You have definitely built some amazing MOCs and even dioramas to go along with them, but for the uninitiated, please introduce yourself and tell us a little about what you do.*

Jürgen Wittner: Hi everyone! My name is Jürgen, 44 years old, architect, and I live in Berlin, Germany. I am a very new member of the whole LEGO *Star Wars* and MOC scene. I had a lot of LEGO bricks in my childhood and LEGO was my absolute favorite indoor activity in the 1980s and early 1990s. LEGO came back into my life with my now seven-year-old son. He is a really big LEGO and *Star Wars* fan and we built a lot of smaller LEGO *Star Wars* sets together, looked at *Star Wars* books, and I explained the story and characters to him in a suitable way for a child. During the first COVID lockdown in April 2019, I was looking for an additional hobby that would challenge me both mentally, but also involve some work with my hands. So I wished for the play scale Millennium Falcon, set 75257, as a birthday present from my girlfriend. That was the starting point for my first MOC and laid the foundation for my renewed enthusiasm for building LEGO.



The front half of Starkiller Base.

Jhaelon Edwards Smith's Starkiller Base

Article by Steven Smyth,
*Bantha Bricks: Fans
of LEGO Star Wars*

Photography
by Jhaelon Edwards Smith

Jhaelon Edwards Smith, who is a well-known community member and YouTube sensation under RichboyJhae, built an amazing Starkiller Base. I thought it would be great to learn more about this extremely talented builder and his custom *Star Wars* LEGO build.

Steven Smyth: *How's it going, Jhaelon? I know you have quite a following with the members of the Bantha Bricks group and I know people in the community and beyond in other online discussions, like your YouTube channel, have been flat out stunned with the magnificence of your Starkiller Base. You have built some amazing MOCs and dioramas, but for the uninitiated, please introduce yourself and tell us a little about what you do.*

Jhaelon Edwards Smith: Ah, thanks Steven. My name is Jhaelon, but most know me as RichboyJhae. I am a huge *LEGO Star Wars* fan! I primarily build MOCs (My Own Creation) of *Star Wars* scenes and sequences. My builds are typically pretty large in scale, but I always strive for that not to come at the expense of detail. I also make an effort to incorporate a custom vehicle I have designed into all my builds.

Would you say *Star Wars* is your favorite theme? Or do you have a shocker for us?

Unfortunately, I have no surprising answer here. *Star Wars* is absolutely my favorite theme. I am probably a bigger *Star Wars* fan than I am a *LEGO* fan.

Why did you choose the *LEGO* brick as your medium to express yourself?

Towards the beginning, *LEGO* was the medium I was just most familiar with. It is a lovely medium for any type of art, but it's versatility, and scale of minifigures, makes it perfect for *Star Wars* creations.

What inspired you to take on this epically huge Starkiller Base MOC?

I can't say I ever intended for it to be epically huge. I typically do not decide on the size of the build up front. I always start by figuring out everything I would like to include in the build, then I determine what size is most realistic to achieve that. Starkiller Base was one of those unique and diverse locations that lent itself well to an immersive LEGO build. I got to build a forest, a large snowscape, mountains, a giant base interior, as well as a huge army assembly all in one build. I cannot think of a single other *Star Wars* location that would allow a builder to incorporate all those elements, all at once.

Can you tell us a bit about the construction—were there any special techniques you used?

I am almost embarrassed to say it, but I have been working on this build for so long that I have forgotten a lot of the techniques I used to achieve certain things. I will highlight one technique in particular, that I used a lot, and that I am most proud of. The rockwork technique I used for the interior of Snoke's room, as well as the prison section, was very unique and visually appealing. I took a bunch of smaller rock assemblies, making sure their shapes were complementary to each other, somewhat like a puzzle, then clipped them into a wall. The result is pretty impressive!

NYK7D1JVM7 EKVM

Kylo Ren's meditation chamber with Snoke hologram.



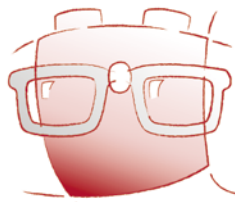
Rey with stormtrooper in Starkiller Base.

Data File: Starkiller Base

Seen in The Force Awakens, Starkiller Base was a military base on the ice planet of Ilum. Armed with a superweapon capable of destroying star systems, the base was destroyed by Poe Dameron.

Source: Star Wars Wookieepedia





BrickNerd Instructions



Flying by Bespin

Design and Instructions

by Dan Ko and the BrickNerd Team

With the *Book of Boba Fett* bringing our favorite Firespray-class starship (RIP Slave I) back to the forefront, we were inspired to create this model to complement all the amazing *Star Wars* creations in this issue of *BrickJournal*.

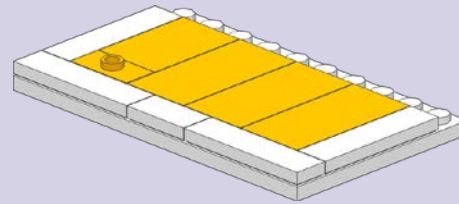
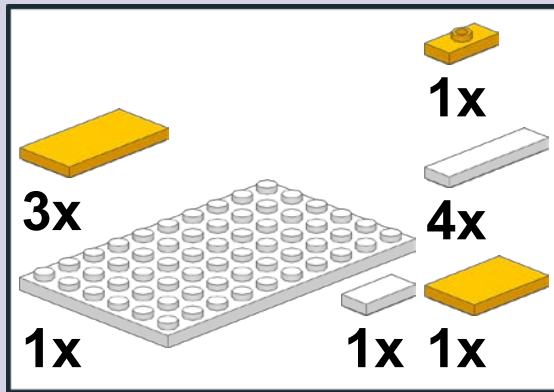
The LEGO model is a desk vignette of a tiny Slave I flying away from the cloudy world of Bespin. New white corner curve pieces represent the clouds, there is a forced perspective of a light grey Cloud City, and the sunset is brick-built layer by layer out of orange hues. What a sunset!

This was originally built as a trophy by Dan Ko for his Small Wars microscale contest in 2021, but was just too good not to share with the rest of the community. May the Force be with you! 

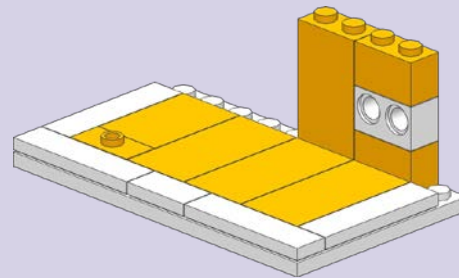
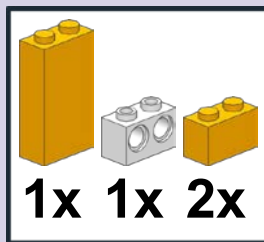
Parts List (Parts can be ordered through [Bricklink.com](https://www.bricklink.com) by searching by part number and color)

Qty	Part	Color	Description
1	29119.dat	Dark Red	Slope Brick Curved 2 x 1 with Cutout Right
1	29120.dat	Dark Red	Slope Brick Curved 2 x 1 with Cutout Left
2	76116.dat	Dark Red	Minifig Mechanical Arm with Clip and Rod Hole
1	3024.dat	Black	Plate 1 x 1
1	11477.dat	Black	Slope Brick Curved 2 x 1
1	3024.dat	Sand Green	Plate 1 x 1
2	85861.dat	Dark Green	Plate 1 x 1 Round with Open Stud
6	3004.dat	Bright Lt Orange	Brick 1 x 2
4	3010.dat	Bright Lt Orange	Brick 1 x 4
8	3023.dat	Bright Lt Orange	Plate 1 x 2
12	3710.dat	Bright Lt Orange	Plate 1 x 4
1	15573.dat	Bright Lt Orange	Plate 1 x 2 with Groove with 1 Centre Stud, without Understud
3	22886.dat	Bright Lt Orange	Brick 1 x 2 x 3 without Understud
1	26603.dat	Bright Lt Orange	Tile 2 x 3
3	87079.dat	Bright Lt Orange	Tile 2 x 4 with Groove
8	3023.dat	Orange	Plate 1 x 2
6	2431.dat	White	Tile 1 x 4 with Groove
4	2453b.dat	White	Brick 1 x 1 x 5 with Solid Stud
1	3033.dat	White	Plate 6 x 10
5	3069b.dat	White	Tile 1 x 2 with Groove
1	3460.dat	White	Plate 1 x 8
1	3666.dat	White	Plate 1 x 6
1	4740.dat	White	Dish 2 x 2 Inverted
2	6091.dat	White	Brick 2 x 1 x 1 & 1/3 with Curved Top
4	11211.dat	White	Brick 1 x 2 with Two Studs on One Side
5	32000.dat	White	Technic Brick 1 x 2 with Holes
8	67810.dat	White	Brick 2 x 2 x 1.333 with Curved Corner Top
1	3023.dat	Lt Bluish Grey	Plate 1 x 2
3	3623.dat	Lt Bluish Grey	Plate 1 x 3
1	3794b.dat	Lt Bluish Grey	Plate 1 x 2 with Groove with 1 Centre Stud
1	3960.dat	Lt Bluish Grey	Dish 4 x 4 Inverted
2	4274.dat	Lt Bluish Grey	Technic Pin 1/2
1	4740.dat	Lt Bluish Grey	Dish 2 x 2 Inverted
1	6541.dat	Lt Bluish Grey	Technic Brick 1 x 1 with Hole
1	11610.dat	Lt Bluish Grey	Cone 1 x 1 Inverted with Shaft
1	15712.dat	Lt Bluish Grey	Tile 1 x 1 with Clip (Thick C-Clip)
2	25269.dat	Lt Bluish Grey	Tile 1 x 1 Corner Round
2	32828.dat	Lt Bluish Grey	Plate 1 x 1 Round with Bar
2	49307.dat	Lt Bluish Grey	Brick 1 x 1 x 0.667 with Curved Top
2	48729b.dat	Lt Bluish Grey	Bar 1.5L with Clip with Truncated Sides and Hole in Shaft

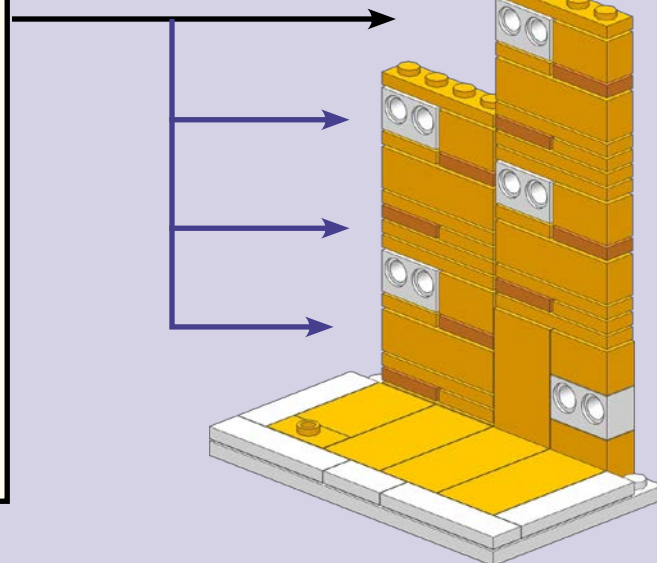
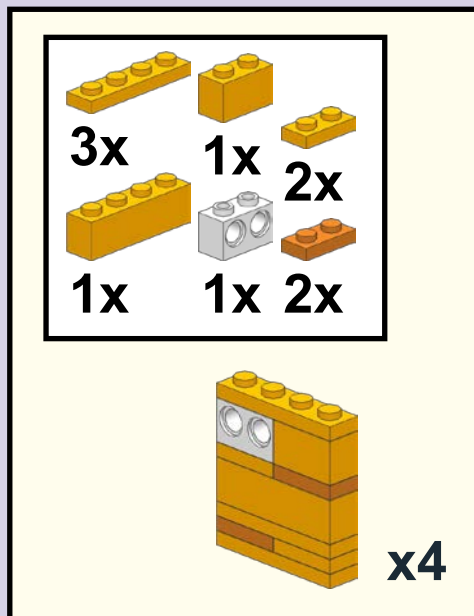
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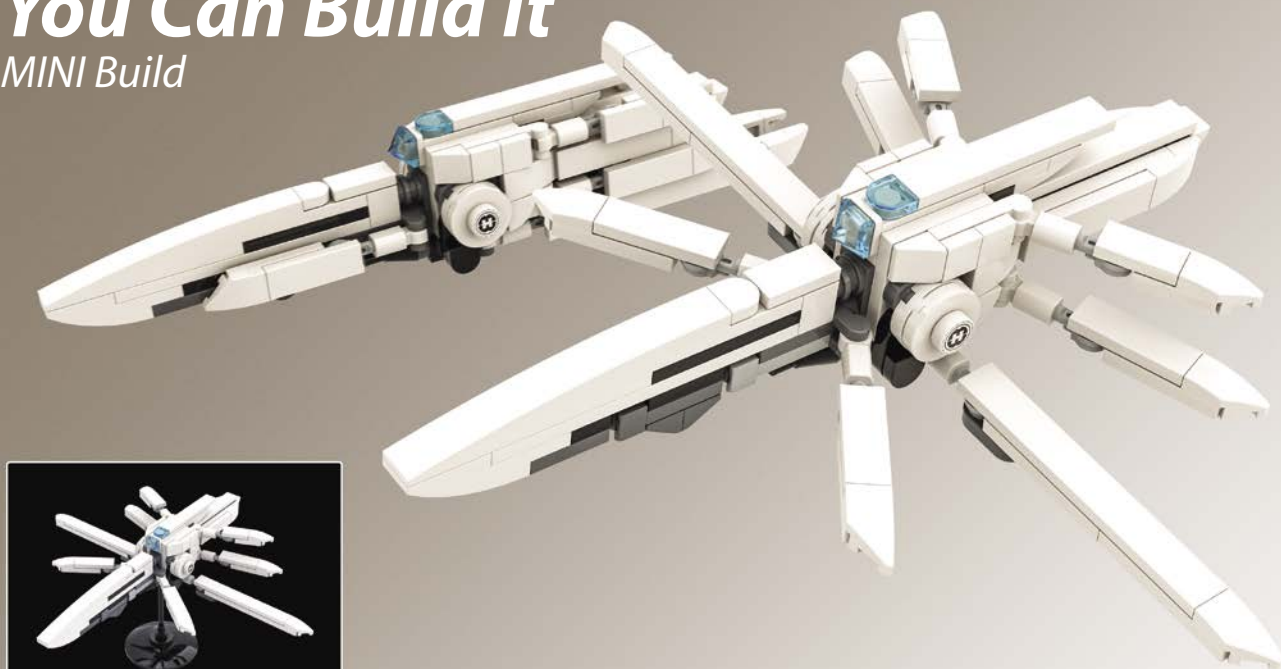
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You Can Build It

MINI Build



MINI Vehicle Concept 1

*Design and Instructions
by David Strenzler*


Thank you to David Strenzler of Force of Bricks (www.forceofbricks.de) for providing us with these great instructions to build the Vehicle Concept 1 drawn by Ryan Church for *Star Wars Episode III: Revenge of the Sith*. Ryan is currently a concept design supervisor at Lucasfilm.

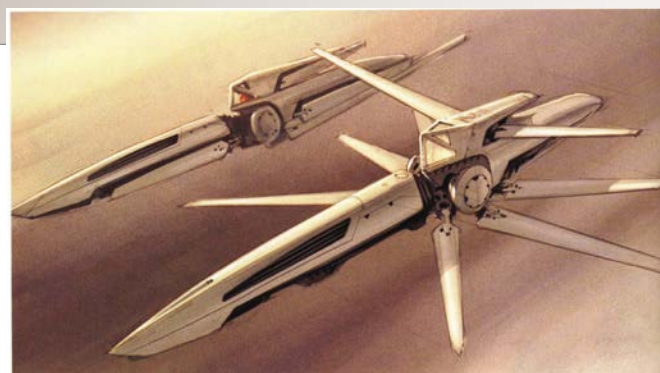
Steven Smyth: *What inspired you to build the Episode III concept art into brick form?*

David Strenzler: I was inspired to build this design in particular in LEGO because it stands out from the typical *Star Wars* design aesthetic, and its elegant curves and smart wing mechanism caught my attention.

What do you hope audiences will derive from building it?

The universe of *Star Wars* is so rich and diverse, especially when it comes to available ship designs. That is what I wanted to bring to people's minds. The Vehicle Concept 1 is a perfect example of such variety, and is refreshing compared to a classic X-Wing or TIE Fighter design.

Well, we love it; thank you again! Folks, be sure to check out Force of Bricks on all social media platforms! May the Force be with you and your bricks! 



Parts List

(Parts can be ordered from Bricklink.com by searching by part number and color)

Qty	Color	Part	Description
1	Black	3023.dat	Plate 1 x 2
4	Black	3024.dat	Plate 1 x 1
1	Black	3623.dat	Plate 1 x 3
1	Black	3710.dat	Plate 1 x 4
1	Black	4070.dat	Brick 1 x 1 with Headlight
2	Black	4733.dat	Brick 1 x 1 with Studs on Four Sides
1	Black	11610.dat	Cone 1 x 1 Inverted with Shaft
1	Black	18674.dat	Plate 2 x 2 Round with 1 Centre Stud
3	Black	24246.dat	Tile 1 x 1 with Rounded End
2	Black	26047.dat	Plate 1 x 1 Round with Horizontal Handle on Side
3	Black	30374.dat	Bar 4L Lightsaber Blade
4	Black	35480.dat	Plate 1 x 2 with Round Ends and 2 Open Studs
1	Black	44375b.dat	Dish 6 x 6 Inverted with Solid Studs
1	Black	63965.dat	~Bar 6L with Thick Stop (Obsolete)
1	Black	85861.dat	Plate 1 x 1 Round with Open Stud
1	Black	87994.dat	Bar 3L
1	Trans Lt Blue	22388.dat	Slope Brick 50 1 x 1 x 0.667 Quadruple
1	Trans Lt Blue	24246.dat	Tile 1 x 1 with Rounded End
2	White	2431.dat	Tile 1 x 4 with Groove
4	White	3023.dat	Plate 1 x 2



Minifig Customization 101:

RWBY

The Final Chapter

Article by Jared Burks

I finally have an article trilogy! The previous article was definitely my *Empire Strikes Back*, as I hit several roadblocks to the character projects, which kept keeping them from being satisfactorily completed. I believe I have most, if not all, of them solved at this point and I am happy to share the story.

The Story So Far

Let's begin with a bit of a recap: I am attempting to create the four huntresses from team RWBY, pronounced "Ruby." This group of huntresses are featured in an anime web series created by Monty Oum for Rooster Teeth. RWBY is set in the fictional world of Remnant, which is composed of four kingdoms plagued by malevolent creatures known as the "Creatures of Grimm." As huntresses along with huntsmen, Team RWBY fight the Grimm. Team RWBY, is composed of Ruby Rose, Weiss Schnee, Blake Belladonna (of the half-human, half-animal Faunus race), and Ruby's

half-sister Yang Xiao Long. Please see the two prior articles in the series for more details, or hit your favorite search engine and look up RWBY.

In my first article on making these minifigures, I started with Ruby Rose and Weiss Schnee. For Ruby, I found reference art and began work on her hair, accessories (scarf/hood combo, cape, and skirt) and weapon (Crescent Rose). For Weiss, I found her reference art and worked on her hairpiece, skirt, and weapon (Myrtenaster).

I expanded my work to include Blake and Yang in my second article. Refinements were also done for the initial two minifigures, with accessories and weapons improved for both. For Blake, reference art was found and work started on hair, accessories (waist cape and hair bow) and weapon (Gambol Shroud). Yang was in the initial stages of design with reference art found and the first version of her weapon (Ember Celica) designed.

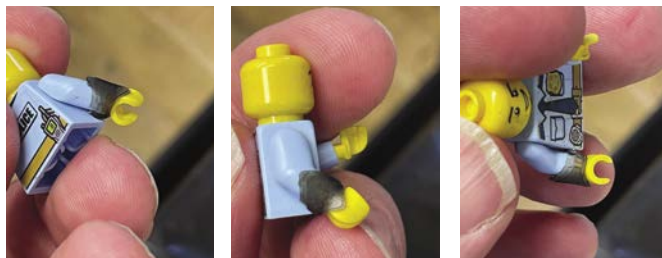
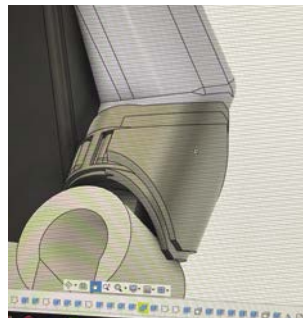
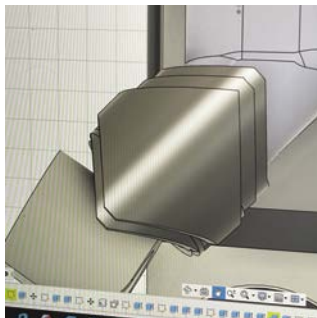
Today, I will show you how I wrapped things up and finalized the figures. I am pleased, very pleased, but there are still things to do like airbrushing Weiss' skirt, adding some paint details to the Gambol Shroud, creating a completely custom hair for Blake, and further improving my cloth parts. I am actively working on these bits, but honestly the figures are complete as they are; those are just bonus points and when I create figures like this there are always lose threads to tie up. So let's jump into what I have to share today.



Test pieces of the Gambol Shroud.



Digital models of the Ember Celica.



Test of the Ember Celica print, with a crack forming on the top.

Variant prints.



3-D Printing

During the creation of these figures, I had several 3-D printing issues that caused me to upgrade my resin printer, add and replace a flexible build plate, and (due to an error) replace the screen. When you are creating parts, especially with all the different resins I used (Anycubic Basic Clear, Elegoo Abs-Like Grey & White, EPAX Hard Black, and Siraya Tech Fast Navy Grey & Tenacious) it can be challenging to figure out all the different printing settings and resin shrinkage. The resin will cure faster or slower and if you get the timing wrong, you can muddy the details you have worked hard to add to your models. Each resin, as it cures, will shrink at a different rate, which means 3.05 mm in one uncured resin will be 3.1 in another. While this seems like a trivial issue when you go to place a part in a Minifigure hand or around the head, if the part is too loose or too small, it simply won't fit. As many parts had to be painted, these had to be tested after the correct paint was identified, as the paints can have various thicknesses as well, making this whole process quite painful.

In the WIP II article I showed the process of designing Blake's Gambol Shroud, however, it wasn't really finished at that time. I had to better design the sheath that holds the sword, which was much more complicated than I thought due to the tooth on the blade. Adding and removing that from the sheath is challenging as the resin doesn't just flow out of this small hole during printing. These are some of the challenges facing printing these small elements.

Yang's Ember Celica had a first draft in WIP II as well; however, as I continued to work with this design, I found it failed on several fronts—and honestly, I had merely over-designed it. The details weren't going to print, so I needed to simplify the design, which had me starting over on the design. Printing this design was particularly challenging as it had to fit over the arm, the hand had to fit through the end, and it needed to be tight so it wouldn't spin. I printed about a hundred different versions.

I also tried something new in printing: I bought a set of resin dyes. Typically these would be added to a clear resin, but I had the Siraya Tech Navy Grey that came out in a color close to the color desired for Weiss' skirt. I wanted it more in the purple family as her torso is Sand Purple. I therefore added some clear resin to the Navy Grey to dilute the pigments and then added quite a bit of red dye, some white dye and white resin, and a bit of orange dye. As you can see from the iterations image, I created many different prints to get the color I was after. This worked well and the dyes seemed to have little effect on the resin behavior. This brings me to what color the final parts were.



Creating Mando's New Ride!

*Photography by Jonathan Dagar,
FX Manaud, and Steve Marsh*

*Let's jump right into it Jonathan
build Din Djarin's starfighter*

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